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## PATENT ABSTRACTS OF JAPAN

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states:(71) Applicant: **TOSHIBA CORP**(72) Inventor: **SAITO SEIJI  
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### **(54) METHOD AND SYSTEM FOR CLEANING**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To surely reduce the number of particles on a substrate by employing pure water dissolved with a gas as cleaning water and immersing an objective into the cleaning water to be subjected to megasonic irradiation.

**SOLUTION:** A cleaning bath 9 is filled with cleaning water in which an object to be cleaned, and a substrate 10 is immersed. During the cleaning operation, the cleaning water flows over the cleaning bath 9 at a constant rate. A megasonic diaphragm 7 is disposed in the center on the bottom of an external tank 11 from which pure water propagates indirectly to the cleaning water in the cleaning bath 9 during the water cleaning operation, thus imparting megasonic oscillation to the cleaning water in the cleaning bath 9. In this way, gas can be dissolved into the pure water

fed to the cleaning bath 9 at all times during the cleaning operation of a wafer, and the concentration thereof can be constantly monitored.

Accordingly, the concentration of dissolved gas can be kept constant.

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